الأية

(عَلَّمَ الإِنسَانَ مَا لَمْ يَعْلَمْ)

سورة العلق الآية (5)

DEDICATION

This project is dedication to the soul of the parents. May Allah have mercy upon them and forgive their sins. And to the hard working parents .May Allah bless them with peace and prosperity . And for all people who pray for us.

ACNOLODGMENT

TO Dr. Alfadil zakreya

mr. Ashraf

Eng.Muhammad Eisawy

And for anyone who gave us a helping hand

المستخلص

احدى التطبيقات المهمة في مجال نقل الكهرباء الشحن للأجهزة الالكترونية ، لقد قمنا بتصميم منظومة لتوليد الطاقة الكهربائية بإستخدام تقنية التحويل الميكانيكي لطاقة المشي لتوليد تيار كهربائي مباشر ، صممنا حذاء متعدد الاغراض حيث يمكنه شحن الأجهزة الالكترونية المحمولة مثل الهاتف النقال.

يقوم هذا العمل بنجاح بالإستفادة من طاقة الانسان أثناء الحياة اليومية من ما سيحسن من المستوى المعيشي في المستقبل القريب.

Abstract

A major application of energy-harvesting technology is to power portable and wearable consumer electronics. We report a packaged power-generating insole with built-in flexible multi-layered triboelectric nanogenerators that enable harvesting mechanical pressure during normal walking. Using the insole as a direct power source, we develop a fully packaged selflighting shoe that has broad applications for display and entertainment purposes. Furthermore, a prototype of a wearable charging gadget is introduced for charging portable consumer electronics, such as cell phones. This work presents a successful initial attempt in applying energy-harvesting technology for self-powered electronics in our daily life, which will have broad impact on people's living style in the near future.

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SSHI	synchronized switch harvesting of inductor
VRLA	Valve regulated iead acid
UPS	Uninterruptible power supplies
NICAD	Nickel cadmium
NIMH	Nickel metal hydride
SCSPC	Self charging super capacitor